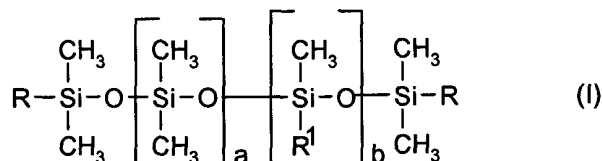


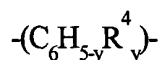
What is claimed is:

1. A method for dispersing at least one pigment and optionally a filler in an aqueous pigment paste, ink or paint formulation, which comprises at least one pigment and optionally a filler, said process comprises mixing in a dispensing medium the pigment and optionally the filler with at least one organofunctional modified polysiloxane of the general formula



in which

- R is in each case identical or different and is R<sup>1</sup> or -CH<sub>3</sub>,
- R<sup>1</sup> is -(CH<sub>2</sub>)<sub>c</sub>-O-(CH<sub>2</sub>-CH(Ph)-O)<sub>e</sub>-(C<sub>n</sub>H<sub>2n-x</sub>R<sup>2</sup><sub>x</sub>-O)<sub>d</sub>-R<sup>3</sup> and/or R<sup>1</sup> = -CH<sub>2</sub>-CHR\*-Ph,
- R\* is H or -CH<sub>3</sub>,
- R<sup>2</sup> is an alkyl residue having 1 to 5 carbon atoms,
- Ph is a phenyl derivative having the general formula



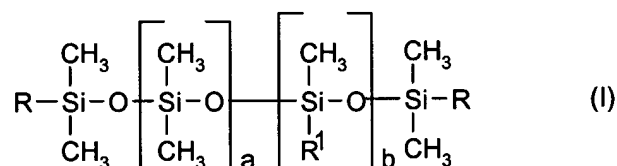
in which

- R<sup>4</sup> is a hydroxyl residue, an alkyl residue or an alkoxy residue, and
- y is from 0 to 5,
- R<sup>3</sup> is hydrogen, an alkyl chain, a benzyl residue, an alkyl-substituted benzyl residue, a group COR<sup>5</sup> with a residue R<sup>5</sup> which has an alkyl chain, a group CONHR<sup>6</sup> with a residue R<sup>6</sup> which comprises a hydrogen atom or an alkyl chain, or CO<sub>2</sub>R<sup>7</sup>, wherein R<sup>7</sup> is alkyl chain,
- c is from 2 to 6,
- d is from 3 to 70,
- e is 0, ≥ 1, with the proviso that if e is 0 the value of b is > 1 and the residue R<sup>1</sup> is present at least once in the molecule,
- n is from 2 to 4,

x is 0 or 1,  
a is from 0 to 100,  
b is from 1 to 100,  
with the proviso that a + b = 1 to 100.

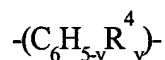
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2. The method according to claim 1 wherein the organofunctional modified polysiloxane is a compound of the formula



in which

- R is in each case identical or different and is R<sup>1</sup> or -CH<sub>3</sub>,  
R<sup>1</sup> is -(CH<sub>2</sub>)<sub>c</sub>-O-(CH<sub>2</sub>-CH(Ph)-O)<sub>e</sub>-(C<sub>n</sub>H<sub>2n-x</sub>R<sup>2</sup><sub>x</sub>-O)<sub>d</sub>-R<sup>3</sup> and/or R<sup>1</sup> = -CH<sub>2</sub>-CHR\*-Ph,  
R\* is H or -CH<sub>3</sub>,  
R<sup>2</sup> is an alkyl residue having 1 to 5 carbon atoms,  
Ph is a phenyl derivative having the general formula



15

in which

- R<sup>4</sup> is a hydroxyl residue, an alkyl residue having 1 to 6 carbon atoms or an alkoxy residue having 1 to 6 carbon atoms, and  
y is from 0 to 5,  
R<sup>3</sup> is hydrogen, an alkyl chain having 1 and up to 18 carbon atoms, a benzyl residue, an alkyl-substituted benzyl residue having up to four carbon atoms in the alkyl residue, a group COR<sup>5</sup> with a residue R<sup>5</sup> which has an alkyl chain having 1 to 18 carbon atoms, a group CONHR<sup>6</sup> with a residue R<sup>6</sup> which comprises a hydrogen atom or an alkyl chain having 1 to 18 carbon atoms, or CO<sub>2</sub>R<sup>7</sup>, which has an alkyl chain R<sup>7</sup> having 1 to 18 carbon atoms,  
c is from 2 to 6,

25

d is from 3 to 70,

e is 0,  $\geq 1$ , with the proviso that if e is 0 the value of b is  $> 1$  and the residue  $R^1$  is present at least once in the molecule,

n is from 2 to 4,

5 x is 0 or 1,

a is from 0 to 100,

b is from 1 to 100,

with the proviso that  $a + b = 1$  to 100.

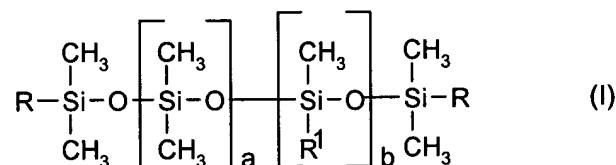
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3. The method according to claim 1, wherein  $R^1$  in formula (I) is the residue  $-(CH_2)_{2-3}-O-(CH_2-CH(Ph)-O)_{1-4}-(C_2H_4-O)_{3-50}-H$ .

15

4. The method according to claim 1 where the aqueous pigment paste, ink or paint comprises a filler.

5. An aqueous pigment formulation which comprises a pigment, water and at least one organofunctional modified polysiloxane of the general formula



in which

20 R is in each case identical or different and is  $R^1$  or  $-\text{CH}_3$ ,

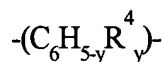
$R^1$  is  $-(CH_2)_c-O-(CH_2-CH(Ph)-O)_e-(C_nH_{2n-x}R^2_x-O)_d-R^3$  and/or  $R^1 = -CH_2-CHR^*-Ph$ ,

$R^*$  is H or  $-\text{CH}_3$ ,

$R^2$  is an alkyl residue having 1 to 5 carbon atoms,

Ph is a phenyl derivative having the general formula

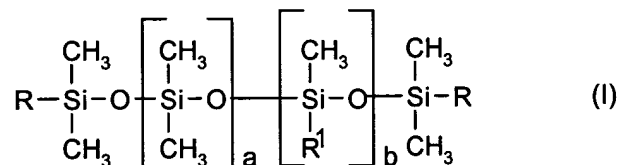
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in which

- $R^4$  is a hydroxyl residue, an alkyl residue or an alkoxy residue, and  
 $y$  is from 0 to 5,  
 $R^3$  is hydrogen, an alkyl chain, a benzyl residue, an alkyl-substituted benzyl residue, a  
 group  $COR^5$  with a residue  $R^5$  which has an alkyl chain, a group  $CONHR^6$  with a  
 residue  $R^6$  which comprises a hydrogen atom or an alkyl chain, or  $CO_2R^7$ , wherein  
 $R^7$  is alkyl chain,  
 $c$  is from 2 to 6,  
 $d$  is from 3 to 70,  
 $e$  is 0,  $\geq 1$ , with the proviso that if  $e$  is 0 the value of  $b$  is  $> 1$  and the residue  $R^1$  is  
 present at least once in the molecule,  
 $n$  is from 2 to 4,  
 $x$  is 0 or 1,  
 $a$  is from 0 to 100,  
 $b$  is from 1 to 100,  
 with the proviso that  $a + b = 1$  to 100.
6. The aqueous pigment formulation according to claim 5, which comprises:  
 about 3 to about 50 parts by weight of at least one of the compound  
 of the general formula (I),  
 0 to about 20 parts by weight of dispersing resin,  
 about 5 to about 80 parts by weight of pigment,  
 about 0.1 to about 5 parts by weight of at least one auxiliary and/or  
 additive,  
 0 to 20 parts by weight of solvent, and  
 remainder water.
7. The aqueous pigment formulation according to claim 6, wherein the pigment is an organic  
 pigment.
8. The aqueous pigment formulation according to claim 7, wherein the organic pigment is an azo  
 pigment, a polycyclic pigment, a diketopyrrolopyrrole or a quinophthalone.
9. The aqueous pigment formulation according to claim 6 wherein the pigment is an inorganic  
 pigment.

10. The aqueous pigment formulation according to claim 9 wherein the inorganic pigment is an iron oxide, a spiral pigment, an ultramarine pigment titanium dioxide, or carbon black.
11. The aqueous pigment formulation according to claim 1 wherein the filler is chalk, talc, koline or silicate.
- 5 12. The aqueous pigment formulation according to claim 1, wherein the auxiliary and/or additive is a defoamer, biocide, antisetling agent, neutralizing agent, thickeners, humectant, stabilizing agent, siccative, light stabilizer.
13. A coating or coating material which comprises at least one organofunctional modified polysiloxane of the general formula



10 in which

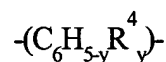
R is in each case identical or different and is  $\text{R}^1$  or  $-\text{CH}_3$ ,

$\text{R}^1$  is  $-(\text{CH}_2)_c-\text{O}-(\text{CH}_2-\text{CH}(\text{Ph})-\text{O})_e-(\text{C}_n\text{H}_{2n-x}\text{R}^2_x-\text{O})_d-\text{R}^3$  and/or  $\text{R}^1 = -\text{CH}_2-\text{CHR}^*- \text{Ph}$ ,

$\text{R}^*$  is H or  $-\text{CH}_3$ ,

$\text{R}^2$  is an alkyl residue having 1 to 5 carbon atoms,

15 Ph is a phenyl derivative having the general formula



in which

$\text{R}^4$  is a hydroxyl residue, an alkyl residue or an alkoxy residue, and

y is from 0 to 5,

20  $\text{R}^3$  is hydrogen, an alkyl chain, a benzyl residue, an alkyl-substituted benzyl residue, a group  $\text{COR}^5$  with a residue  $\text{R}^5$  which has an alkyl chain, a group  $\text{CONHR}^6$  with a residue  $\text{R}^6$  which comprises a hydrogen atom or an alkyl chain, or  $\text{CO}_2\text{R}^7$ , wherein  $\text{R}^7$  is alkyl chain,

c is from 2 to 6,

25 d is from 3 to 70,

e is 0,  $\geq 1$ , with the proviso that if e is 0 the value of b is  $> 1$  and the residue  $R^1$  is present at least once in the molecule,

n is from 2 to 4,

x is 0 or 1,

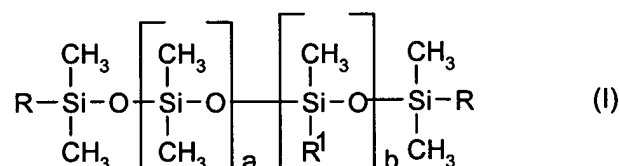
5 a is from 0 to 100,

b is from 1 to 100,

with the proviso that  $a + b = 1$  to 100,

and at least one filler or binder.

14. An aqueous pigment paste, ink or paint formulation which comprises a pigment, optionally a  
10 filler, and at least one organofunctional modified polysiloxane of the general formula



in which

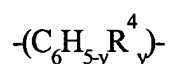
R is in each case identical or different and is  $R^1$  or  $-\text{CH}_3$ ,

$R^1$  is  $-(\text{CH}_2)_c-\text{O}-(\text{CH}_2-\text{CH}(\text{Ph})-\text{O})_e-(\text{C}_n\text{H}_{2n-x}\text{R}^2_x-\text{O})_d-\text{R}^3$  and/or  $R^1 = -\text{CH}_2-\text{CHR}^*- \text{Ph}$ ,

$R^*$  is H or  $-\text{CH}_3$ ,

15  $R^2$  is an alkyl residue having 1 to 5 carbon atoms, preferably  $-\text{CH}_3$ ,

Ph is a phenyl derivative having the general formula



in which

$R^4$  is a hydroxyl residue, an alkyl residue or an alkoxy residue, and

20 y is from 0 to 5,

$R^3$  is hydrogen, an alkyl chain, a benzyl residue, an alkyl-substituted benzyl residue, a group  $\text{COR}^5$  with a residue  $R^5$  which has an alkyl chain, a group  $\text{CONHR}^6$  with a residue  $R^6$  which comprises a hydrogen atom or an alkyl chain, or  $\text{CO}_2\text{R}^7$ , wherein  $R^7$  is alkyl chain,

25 c is from 2 to 6,

d is from 3 to 70,

e is 0,  $\geq 1$ , with the proviso that if e is 0 the value of b is  $> 1$  and the residue R' is present at least once in the molecule,

n is from 2 to 4, preferably 2 or 3,

$x$  is 0 or 1,

5            a is from 0 to 100,

b is from 1 to 100,

with the proviso that  $a + b = 1$  to 100.